

ACTIVE NIGHT VISION SYSTEM FOR VEHICLES EMPLOYING ANTI-BLINDING SCHEME

Abstract

A night vision system for a vehicle includes a pulsed light source for illuminating a region proximate the vehicle and a secondary trigger light source operating at a predetermined pulse timing and second wavelength. A light sensor detects light at the second wavelength. The trigger light pulses are used to indicate the pulse timing of each respective vehicle's primary NIR light source. Upon detecting another vehicle's trigger light source, the controller adjusts the pulse phase of the first light source to be exactly out-of-phase with that of the oncoming vehicle since the pulsed timing of the oncoming vehicle's NIR light source is known upon detection of the opposing vehicle's trigger light source. Each vehicle can then adjust its primary light source to be out-of-phase with the other vehicle and, hence, non-interfering.